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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/642,212

08/18/2003

Toshio Yoshihara

DAIN:560A

2227

6160

7590

08/11/2004

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EXAMINER

MCPHERSON, JOHN A

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,212

Applicant(s)

YOSHIHARA ET AL.

Examiner

John A. McPherson

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-62 is/are pending in the application.
- 4a) Of the above claim(s) 25-52 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 53-55, 58 and 59 is/are allowed.
- 6) ☒ Claim(s) 57 and 60-62 is/are rejected.
- 7) ☒ Claim(s) 56, 57, 61 and 62 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/640,175.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/18/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 25-52, drawn to a color filter comprising a soluble pigment precursor and a stabilizing agent (i.e. the "Second Invention" in the specification), classified in class 430, subclass 7.
- II. Claims 53-62, drawn to a color filter comprising a ring-opened pyrrolopyrrole derivative (i.e. the "Third Invention" in the specification), classified in class 430, subclass 7.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation, wherein the invention of Group I operates by stabilizing the dispersibility of an insoluble pigment formed from a soluble pigment precursor with a stabilizing agent, wherein the invention of Group II functions by providing a ring-opened pyrrolopyrrole derivative which can be converted into an insoluble pigment.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Roger Parkhurst on 7/23/04 a provisional election was made with traverse to prosecute the invention of Group II, claims 53-62. Affirmation of this election must be made by applicant in replying to this Office action. Claims 25-52 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

6. Claim 56 is objected to because of the following informalities: the first two lines of the claim are missing from the Preliminary Amendment filed 8/18/03 (see originally filed claim 56). Appropriate correction is required.

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7. Claim 57 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Specifically, in claim 57 "D" may be hydrogen, however in claim 53 "D" must be a group of formula (II), (III), or (IV). Therefore, dependent claim 57 includes compounds which are not within the scope of those required in independent claim 53.

8. Claim 61 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Specifically, claim 61 requires that "the pyrrolo[3,4-c]pyrrole derivative of formula (V) according to claim 53 is contained in the colored layer", however claim 53 previously presents the limitation "said colored layer containing a pyrrolo[3,4-c] derivative" of formula (V). Therefore, the limitation of dependent claim 61 is previously present in independent claim 53.

9. Claim 62 is objected to because of the following informalities: the compound of formula (VII) is missing a hydrogen atom. See formula (VII) on page 32, line 4 of the specification. Appropriate correction is required.

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10. Claim 62 objected to because of the following informalities: the claim depends from claim 53 twice, once in line 1, and again in line 8. Appropriate correction is required.

11. Claim 62 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Specifically, claim 62 states that the colored layer contains a coloring matter of formula (VII), which is produced from the pyrrolo[3,4-c]pyrrole derivative of claim 53, however claim 53 requires that the colored layer contain the pyrrolo[3,4-c]pyrrole derivative. Claim 62 does not contain the derivative itself, but instead contains a coloring matter produced from the derivative. Therefore, dependent claim 62 fails to further limit independent claim 53, which requires the presence of the derivative in the colored layer.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 57, 60 and 61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 57 recites the limitation "if D and/or E are a group of formula (IX)" in line 15. There is insufficient antecedent basis for this limitation in the claim, because no definition of "formula (IX)" is present.

Regarding claim 60, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 61 recites the limitation "the coloring material" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 62 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,840,449 (US '449). US '449 discloses a pigment coating, useful as a color filter, comprising a pigment

formed from a latent pigment, wherein the exemplified pigments includes a diketopyrrolo[3,4-c]pyrrole of formula (XVIb), which corresponds to the pyrrolo[3,4-c]pyrrole of formula (VIII) in the present invention. See the abstract and column 20, line 65 to column 21, line 48.

Claim 62 is a product-by-process claim. The product of the prior art appears to be substantially identical to the product of the present invention because both products comprises a pyrrolo[3,4-c]pyrrole pigment, although the pigments are produced by a different process (i.e. from different latent pigments). It has been held that when the prior art discloses a product which reasonably appears to be either identical or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). Furthermore, see MPEP 2113.

Allowable Subject Matter


14. Claims 53-55, 58 and 59 are allowed because in a color filter comprising a colored layer as colored pixels provided on a transparent substrate, the colored layer containing a pyrrolo[3,4-c]pyrrole derivative, the prior art does not teach or suggest the colored layer containing a pyrrolo[3,4-c]pyrrole derivative having the structure as set forth with respect to formula (I) having at least one ketopyrrole group converted to a structure of formula (V).

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John A. McPherson
Primary Examiner
Art Unit 1756

JAM
8/6/04